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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
09/673,961	12/15/2000	Andreas Bausewein	P00,1844	8768

7590 05/21/2003
Baker Botts LLP
30 Rockefeller Plaza
New York, NY 10112

EXAMINER

SINES, BRIAN J

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/673,961

Applicant(s)

BAUSEWEIN ET AL.

Examiner

Brian J. Sines

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/13/2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) 12-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of group I, claims 1 – 8 in Paper No. 11 is acknowledged. The traversal is on the ground(s) that the present application is a PCT application, which has allegedly met the required "unity of invention" standard. This is not found persuasive because this application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Group I, claim(s) 1 – 8, drawn to an engine exhaust gas sensor.

Group II, claim(s) 12 – 17, drawn to a method of using an engine exhaust gas sensor.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The sensor as recited in claim 13 does not specifically recite that the first sensor region comprises pores in which traces of at least one catalytically active substance is present as a catalytic agent, as recited in claim 1.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "first layer" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 5, the term "realized" is unclear. Is either the first or second sensor region comprised of a resistive semiconductive layer?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 4 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by De Castro et al. (U.S. Pat. No. 5,841,021 A). Regarding claim 1, De Castro et al. teach a gas sensor (10) comprising first and second sensor regions (12 & 14) responding to at least one reactive exhaust gas constituent and having a catalytic agent for converting reactive exhaust gas constituents with a higher catalytic activity in the first sensor region, wherein the first sensor region comprises pores in which traces of at least one catalytically active substance is present as a catalytic agent (see col. 9, lines 16 – 65; figures 1 – 5). Regarding claim 2, it is inherently anticipated that the reference electrode or the second sensor region, contain no catalytically active substances, since the reference electrode is not actively involved in sensing the gas analyte (see col. 9, lines 16 – 44). Regarding claim 3, De Castro et al. teach that the concentration of the

catalytically active substance in the second sensor region (reference electrode, 14) is zero (see col. 9, lines 16 – 44; col. 13, lines 55 – 61). Regarding claim 4, De Castro et al. teach that the catalytic electrode (12) is comprised of a noble metal catalyst, such as platinum (see col. 9, lines 45 – 47). Regarding claim 4, it should be noted that these claims are directed to an apparatus. Therefore, it is the structural limitations of the apparatus, as recited in the claims, which are considered in determining the patentability of the apparatus. These claims recite various process or use limitations and are accorded no patentable weight to an apparatus. For example, claim 4 recites how the platinum metal is produced, such as by thermolysis of a platinum-containing compound, which is introduced in fluid form into the pores of the sensor region. This process of making limitation does not impart any limitation in defining the structure of the apparatus being claimed. Process limitations do not add patentability to a structure, which is not distinguished from the prior art. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Regarding claim 8, De Castro et al. teach that both of the sensor regions are evaluated in parallel (see col. 12, lines 8 – 53).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5 – 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Castro et al. in view of Meixner et al. (U.S. Pat. No. 6,101,865 A). De Castro et al. do not specifically teach that the sensor regions are manufactured of a resistive semiconductor, such as strontium titanate. Meixner et al. do teach the incorporation of a porous strontium titanate layer as a gas sensing layer in a gas sensor (see col. 2, lines 64 – 67; col. 3, lines 1 – 25). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the use of strontium titanate, as taught by Meixner et al., with the gas sensor, as taught by De Castro et al., since the Courts have held that the selection of a known material based upon its suitability for the intended use is within the ambit of one of ordinary skill in the art (see *In re Leshin*, 125, USPQ 416 (CCPA 1960)). Furthermore, regarding claim 6, it should be noted that these claims are directed to an apparatus. Therefore, it is the structural limitations of the apparatus, as recited in the claim, which are considered in determining the patentability of the apparatus. This claim recites process or use limitations and are accorded no patentable weight to an apparatus. For example, this claim recites that the sensor region is manufactured as a semiconductor thick-film with pore-formation by silk-screening. These process

limitations do not impart any limitations to define the structure of the apparatus being claimed. Process limitations do not add patentability to a structure, which is not distinguished from the prior art. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Heijne teaches a gas measuring cell comprising two gas sensitive elements made of a semiconductive oxide material. Lemire et al. teach a gas sensor which incorporates the use of strontium titanate as a catalytically active metal oxide layer for sensing.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Sines whose telephone number is (703) 305-0401. The examiner can normally be reached on Monday - Friday (11:30 AM - 8 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (703) 308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Art Unit: 1743

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

BJS
May 19, 2003


Jill Warden
Supervisory Patent Examiner
Technology Center 1700